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POWDERY MILDEW OF BRINJAL FROM JAMMU (J & K STATE)

BRINJAL (*Solanum melongena* L.) is an important vegetable crop in the J & K State. During November–December 1976, a powdery mildew was observed on this plant both in the commercial farms as well as the kitchen gardens in and around Jammu city. The appearance of powdery mildew on brinjal poses a potential threat to the vegetable industry in this state. The present note presents an account of the symptomatology of the disease and description and identification of the pathogen.

Disease symptoms were quite conspicuous on host leaves. On the adaxial laminar surface, the fungus forms dirty white irregular powdery spots which coalesce with one another and cover the entire laminar surface. In the meantime, the abaxial surface also gets covered by the pathogen. As the host leaf undergoes yellowing, the mycelium becomes evanescent on the adaxial surface whereas on the abaxial side, the conidial production continues. As a consequence of the fungal activity, the leaf shows early signs of senescence and falls off prematurely.

Mycelium is evanescent and dirty white on adaxial side but pure white on the abaxial leaf surface. Conidia were formed in chains; the basal cell of the conidiophore is cylindrical or slightly club-shaped, measuring $45-90 \mu \times 9-38-56-25 \mu$. Conidia are ellipsoidal, $28-33-35-63 \mu \times 15-00-18-75 \mu$ in size, containing

vacuoles and rod-shaped fibrosin-bodies [which are visible in water mounts. Conidial germination is of *Sphaerotheca fuliginea* type¹.

Solanum melongena L. is known to host *Erysiphe polygona*², *E. cichoracearum*, *Leveillula taurica*, *Phylactinia suffulta*, *Sphaerotheca fuliginea* and *Oidium* sp.³ and *Leveillula solanacearum* Golov^{4,5}, in different parts of the world. From India, however, only *Erysiphe polyphaga* on plants growing in the glass-house⁶ and *Oidium erysiphoides*⁷ have been reported.

On the basis of conidial characters¹ such as shape, size, mode of formation of conidia, presence of fibrosin bodies in them and the pattern of their germination, the fungus collected from diseased plants of brinjal at Jammu during the present work has been identified as *Sphaerotheca fuliginea* [(Schlecht) Fr.] Poll. a fungus not reported on this host from India so far. *Solanum melongena* L. is, therefore, an addition to the known host range of *S. fuliginea* in India.

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TWO NEW SPECIES OF SPHAEROPSIDALES ON ORNAMENTAL PLANTS

THE authors encountered two unusual leaf-spot diseases incited by two Sphaeropsidaceous fungi at Poona recently. These two collections on detailed study and reference¹⁻³ proved to be new species. These are briefly described as follows with Latin diagnoses.

1. *Coniothyrium ficicola* sp. nov. (Fig. 1).

Infectio maculae, brunnea vel fusca-brunnea, ovoidea vel irregularis, dispersa, effusus intrinsecus marginalia vel apicis, originata orinda, non-coalitus,

Pycnidia punctiformia, sub-globosa vel irregulare, separata, innata, postea erumpentia, postiolata, magnitudine 86-137 μ m in diam. Conidia (pycnidiosporae) unicellularia, brunnea, elliptica, laevia, magnitudine 8-10 \times 6-6.5 μ m.

Note: A perusal of literature for a comparative study revealed that the present species proved to be distinct in possessing much bigger pycnidiospores.

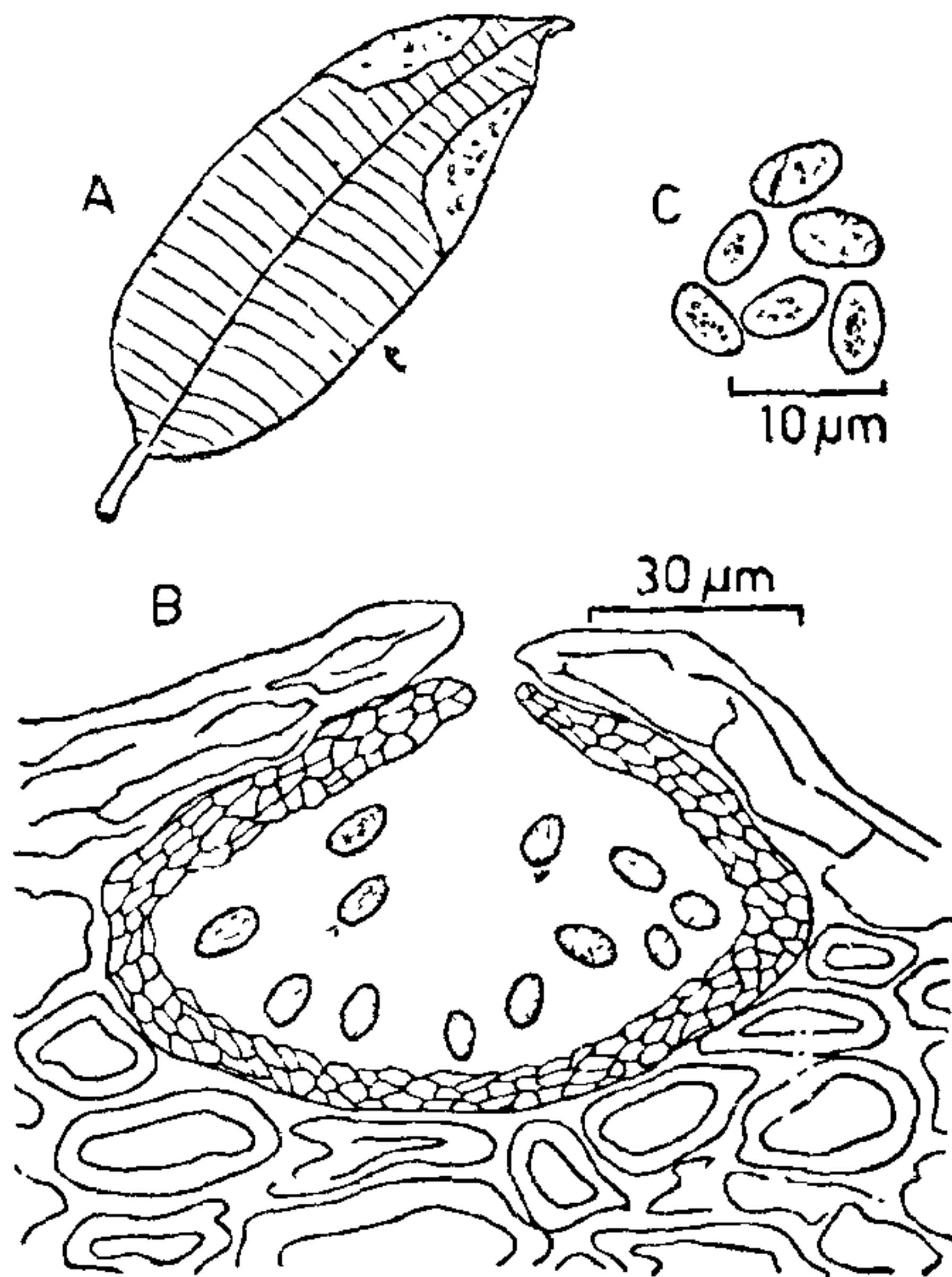


FIG. 1. *Coniothyrium ficicola* sp. nov. A. Leaf spot symptoms, B. V.S. of pycnidium, C. Conidia (pycnidiospores).

Habit: In foliis viventibus *Ficus elastica* var. *ariegata* legit. B. R. D. Yadav, mense, October 1976 ad Poona (India), AMH No. 3752 (Holotypus).

Note: On comparison, the present collection of *Coniothyrium* showed some resemblance to *C. dioscoreae* Sahní³ in the size of conidia but distinguishable from it in possessing much bigger pycnidia.

Macrophoma zylanicae sp. nov. (Fig. 2)

Infectimis maculae dispersa, ovoidea vel irregulare coalitus, pallide-brunnea vel salmonaeus, originata oriunda, margineum laevia, postea crispus. Pycnidia punctiformia, sub-epidermatia, globosa vel sub-globosa ostiolata, magnitudine 117-172 μ m diam. Conidia hyaline, unicellularia, elliptica, laevia, magnitudine 21.5-37 \times 8-10 μ m.

Habit: In foliis viventibus *Sansevieria zylanica* Bajor legit. B. R. D. Yadav, mense June 1976 ad Poona (India), AMH No. 3753 (Holotypus).

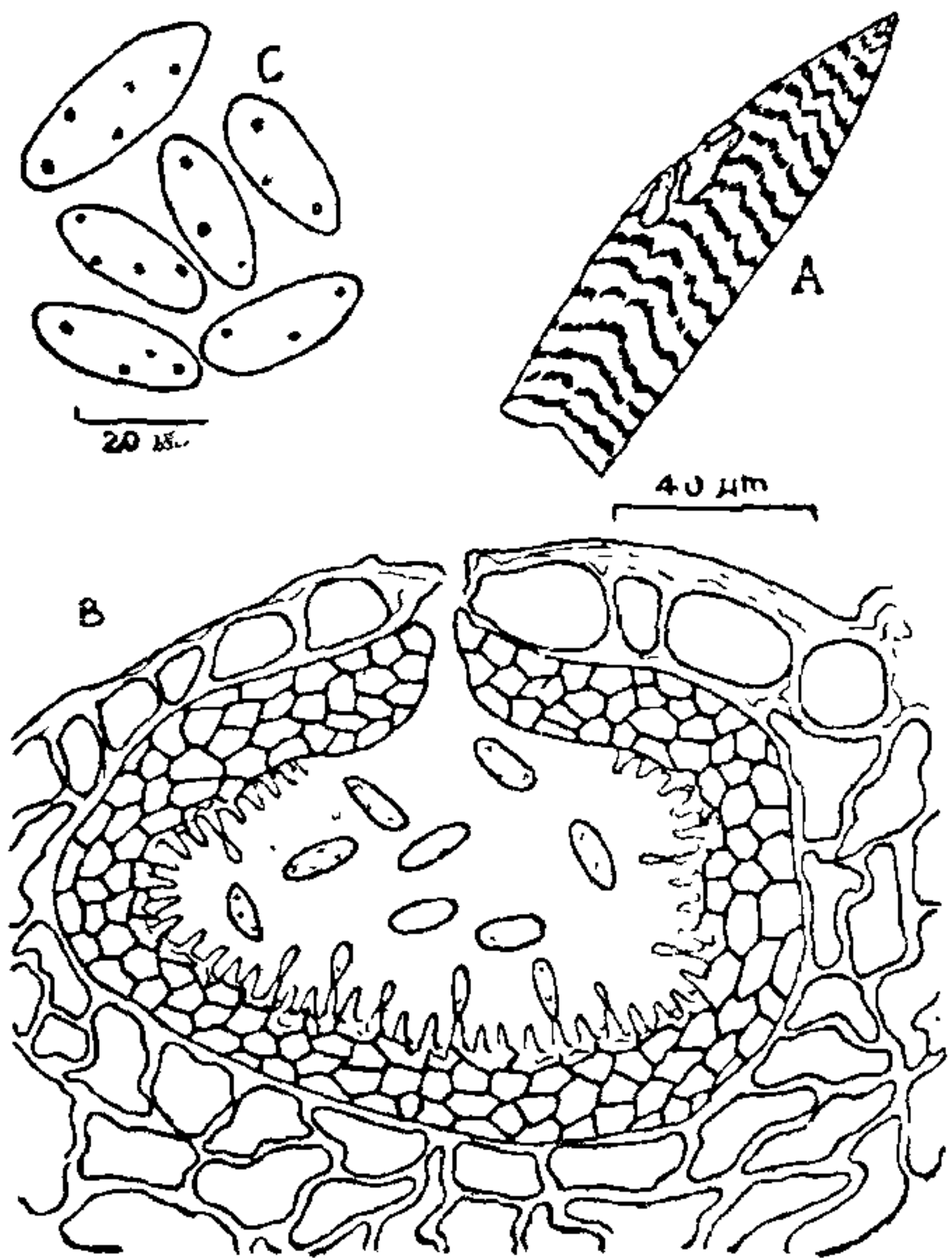


FIG. 2. *Macrophoma zylanicae* sp. nov. A. Leaf spot symptoms, B. V.S. of pycnidium, C. Conidia (pycnidiospores).

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